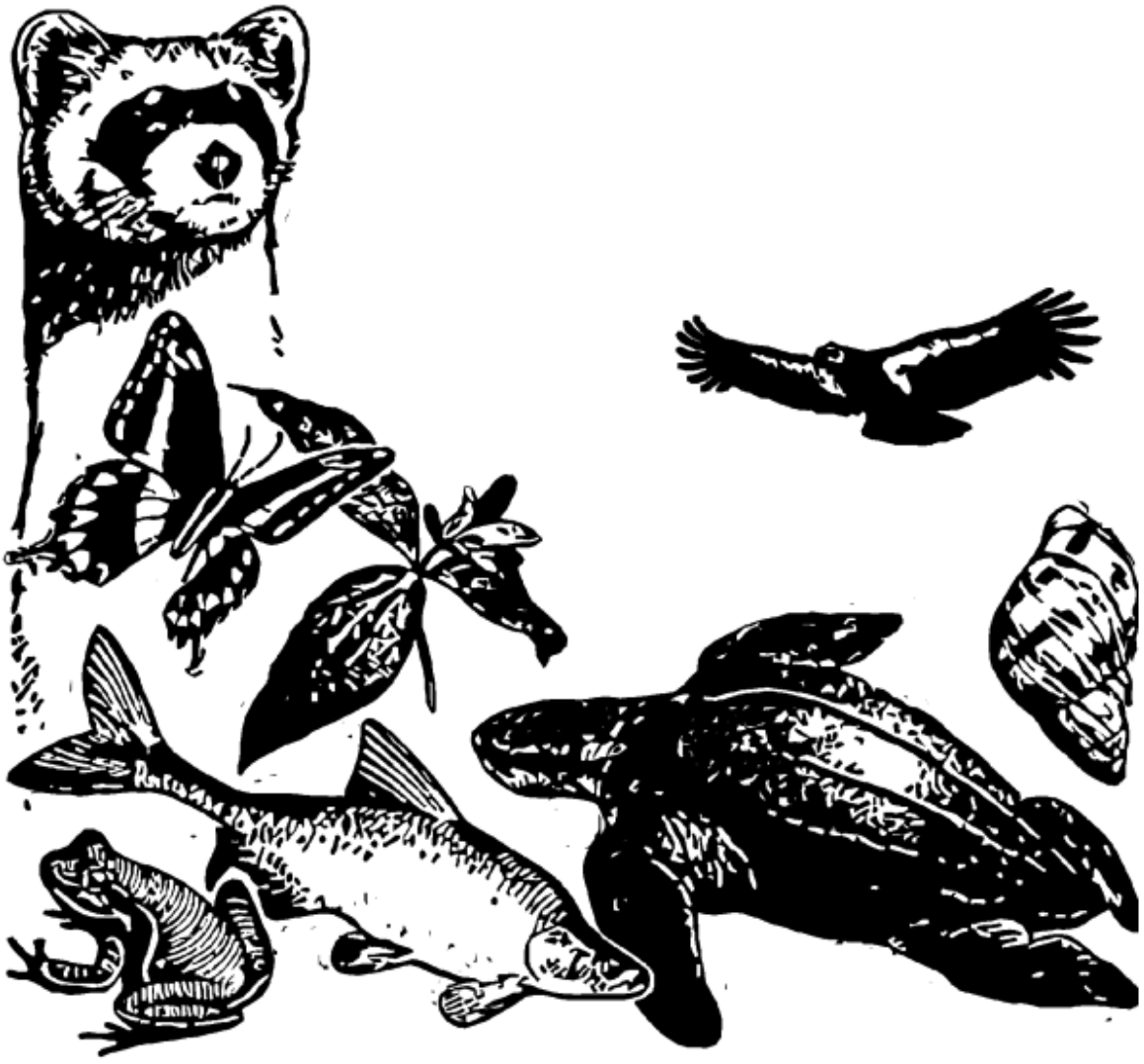
U.S. Fish & Wildlife Service

Snail Kite Survey Guidelines

Everglade Snail Kite

Generated June 28, 2022 11:30 PM UTC, IPaC v6.76.1-rc3



IPaC - Information for Planning and Consultation (https://ipac.ecosphere.fws.gov/): A project planning tool to help streamline the U.S. Fish and Wildlife Service environmental review process.

APPENDIX A
USFWS Snail Kite Survey Guidance

The objective of the survey is to document any and all use of the area by snail kites. To this end, the most important aspects are complete survey coverage and detailed documentation of kite activity. Documenting approximate nesting location and related snail kite activity/behavior are important, but "nest checks" are not required nor allowed without a valid Endangered Species Recovery Permit under Section 10(a)(1)(A) of the Endangered Species Act. Unless an observer possesses a valid 10(a)(1)(A) permit, nest monitoring must be conducted from a minimum distance of 500 feet (ft) to avoid disturbing nesting kites.

Snail kite surveys should be conducted in the early morning to increase the probability of detection and decrease potential thermal stress to eggs or nestlings. To maximize the probability of observing kite activity, surveys should not be conducted in any precipitation above a slight sprinkle, in fog that impedes visibility, or in strong winds.

A. Nesting and Courtship Behavior – look for these characteristics for hints of nest presence:

- Stick carrying – Follow birds with material carries. (However, sometimes it won't lead you to a structure, as males may carry around as a courtship behavior.)
- Long drawn out calling – Individuals call for many reasons but if you aren't pressing into their space long drawn out calling can hint at a possible structure.
- Diving and Swooping – Males will often swoop and dive in a courtship display. If you see a pair swooping around together it could mean a potential nest. Sometimes very aggressive adults will swoop at people or boats if there is a nest very close by, but this is rare.
- Copulation – This can sometimes be a result of stress but often means that there is a nest or there will soon be one.
- Carrying of meat – If a kite has meat in its talons or bill, it is either taking it to a mate or a nest. If you see these behaviors follow that individual giving them enough space to return to a possible nest.
    - Kites flying with the whole snail doesn't necessarily mean they are nesting. Kites will sometimes fly long distances for a preferred perch just to extract the meat.
- Circling and calling – If two kites are circling and calling, there is most likely a nest nearby.

B. Survey Protocol:

1. Surveys conducted by airboat or other motor vehicles should be conducted using at least two observers (a driver and a passenger). Multiple crews of two (using multiple airboats) may be used at the same time to cover a larger area if desired. Kayaks may also be used if the area is smaller and sufficient coverage can be achieved.
2. Before the survey begins, the observer should record the date, location, observer name(s) (identify driver/passenger), start time, and weather (temp, wind speed, cloud cover).

3. If available, the driver should turn on the tracks on the driver GPS. Previous tracks should only be used as a guide to help drivers navigate through difficult terrain, avoid known hazards, understand the general extent of surveys, and locate access points. Tracks can also be used to know where you didn't go on previous surveys. There is no need to follow previous tracks – it is more important to thoroughly search the area for snail kite activity.
4. Surveys are conducted by following a given route which depends on the project area:
    a. All potential suitable foraging and nesting habitat within the project area plus a 500 meter (m) buffer (herein, this is referred to collectively as the survey area) should be surveyed for snail kite activity.
    b. In lake habitats, follow the perimeter of the lake as well as any islands that are present. The survey route should be adjusted as needed to survey the entire width of littoral habitat.
    c. In wetland habitats, establish transects starting along the wetland edge (or the edge of the survey area within the wetland), with subsequent parallel transects spaced such that all potential nesting and foraging habitat is surveyed within the survey area. Spacing between transects will be site dependent, based on onsite habitat and visibility, but should not be more than 200 m between transects.
    d. DO NOT drive through potential nesting substrate or put the boat in a situation where you might prop blast or destroy possible nesting habitat.
    e. Stay at least 500 ft from confirmed or suspected nest locations to avoid disturbing nesting kites.
    f. If a kite appears agitated (cackling, quick wing flapping, circling overhead), increase the distance between your boat and the kite until the bird stops its agitated behavior. The distance at which kites may become agitated varies between individual birds, so paying close attention to bird behavior is important.
5. Once the survey has commenced, the observer/passenger should scan with binoculars up to 80% of the time. The driver should also scan for snail kites and alert the passenger of observations.
6. For every kite observed, take a GPS location (either at location of bird, or a GPS point with bearing/distance) and record the following on the datasheet:
    a. Time of observation
    b. Sex (male=M; female=F; juvenile=J; young of the year=Y; unknown=U)
    c. Activity
        i. Perched = P
        ii. Flying = FL
        iii. Foraging (obvious hunting for prey, or with snail) = FG
        iv. Courtship (calling, mate feeding, copulation, flying with nesting material) = C
        v. Suspected nesting (defending, flushing from, carrying sticks or food to a suspected nest location) = N
    d. Banded status (whether the bird is banded Y/N, color bands if these can be read)

7. If you see agitated/defensive behavior or other breeding activity that suggests an active nest is nearby, mark the location on an aerial map. In addition, record a GPS point and describe the approximate distance and direction from the location. After quickly recording the location data, increase your distance from the suspected nest until the bird stops its agitated behavior and you are at least 500 ft from the suspected nest. Location information should be provided to the Service the same day so that we can confirm nesting as quickly as possible.
8. At the end of the survey, the passenger should record end time (note any breaks taken) and tally birds seen (if no birds were seen this should be indicated by writing "NO BIRDS" across the sheet). It is also helpful to record presence of any snail eggs (note whether exotic or native) or snails (live/shells) observed.